Foot Autotomy in the Gastropod *Gena varia*

(Prosobranchia: Trochidae)

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(1 Text figure)

Large concentrations of *Gena varia* A. Adams, 1850, a prosobranch gastropod usually typical for tropical regions, are encountered among the animals occurring under stones in the infratidal zone at Eilat (Red Sea, Israel). These gastropods are markedly photophobic and the slightest disturbance, e. g. merely trying to lift the stones under which they hide, puts them to flight. In attempting to escape, they plunge downwards and disappear among the algae and stones at the sea-bottom.

A prominent morphological feature of this genus is the large foot which extends posteriorly and cannot retract under the small ear-like shell (Figure 1).

A phenomenon rather unusual for mollusks was detected during collection of these prosobranch gastropods: when touched, they reacted by autotomy of that part of their foot which extended past the posterior margin of the shell. Immediately after, they attached firmly to a nearby stone, now completely covered by their shell.

The amputated part of the foot continued to exhibit movements for two to six hours after autotomy. Preliminary observations have clearly shown that the autotomy is not haphazard but always follows a well-defined course, occurring along the fine white line that traverses the foot. The region along this transverse line is histologically different from adjacent regions of the foot. Regeneration of the foot commences several days after autotomy.

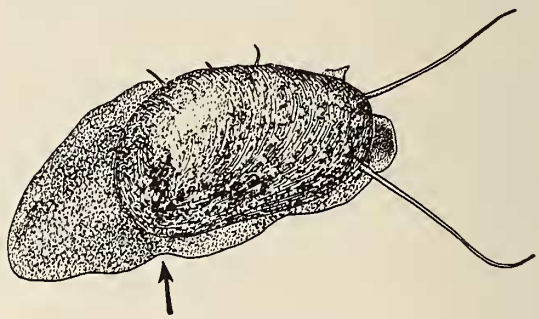

Figure 1

A living specimen of *Gena varia* A. Adams
The arrow points to the narrow line of autotomy. x 2

Further histological and biological investigations should elucidate the cytological basis of this phenomenon as well as its biological importance.

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